IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method of separating an olefin from a gas stream, ~~said gas stream comprising the olefin and at least one other component~~ wherein the gas stream is an offgas stream resulting from an epoxidation process, said process comprising reacting an olefin with a hydroperoxide to give a product stream comprising olefin, olefin oxide, and solvent, and separating the olefin oxide from said product stream by distillation, wherein at least one inert gas is introduced, to give the offgas stream comprising the olefin, solvent, the at least one inert gas, and 10 wt.% of oxygen or less, said method comprising

(i) compressing and cooling the gas stream;

(ii) separating the olefin from the gas stream by absorbing the olefin in an absorbent~~, wherein absorption is carried out in at least an absorption column at a pressure of more than 10 to 20 bar, the absorbent being a mixture of hydrocarbons $C_nH_{2n+2}$ wherein n is from 10 to 20, the mixture comprising the hydrocarbon $C_{14}H_{30}$ in an amount of at least 10 percent by weight of the mixture~~ in an absorption unit, wherein no inert gas is additionally added to the absorption unit; and

(iii) separating the olefin from the absorbent by desorption;

wherein compressing or cooling or compressing and cooling in (i) is carried out at least twice.

Claim 2 (Original): The method as claimed in claim 1, wherein compressing and cooling in (i) is carried out three times.

Claim 3 (Original): The method as claimed in claim 1, wherein, in (i), the gas stream is compressed to a pressure of from 10 to 20 bar and cooled to a temperature of from 25 to 50 °C.

Claim 4 (Original): The method as claimed in claim 1, wherein, in (i), from 30 to 90 percent of the olefin comprised in the gas stream are condensed.

Claim 5 (Currently Amended): The method as claimed in claim 1, wherein the gas stream additionally ~~comprising~~ comprises methanol or water or methanol and water.

Claim 6 (Original): The method as claimed in claim 5, wherein, in (i), from 30 to 90 percent by weight of the olefin, from 40 to 99 percent by weight of the methanol and/or from 35 to 99 percent by weight of the water, comprised in the gas stream, are condensed.

Claim 7 (Canceled).

Claim 8 (Original): The method as claimed in claim 1, wherein the absorbent has a boiling point of from 200 to 300 °C at standard pressure.

Claim 9 (Canceled).

Claim 10 (Currently Amended): The method as claimed in claim 1, wherein separating the olefin from the absorbent is carried out in at least one separation column.

Claim 11 (Original): The method as claimed in claim 10, wherein, after separation of the olefin in (iii), the absorbent is recirculated into (ii).

Claim 12 (Original): The method as claimed in claim 10, wherein, after separation of the olefin, the absorbent is purified in a flash drum or in a forced circulation vaporizer and subsequently recirculated into (ii).

Claim 13 (Original): The method as claimed in claim 1, wherein the olefin is propene.

Claim 14 (Canceled).

Claim 15 (Currently Amended): The method as claimed in claim [[14]] 1, wherein the epoxidation reaction is carried out in the presence of a solvent comprising methanol.

Claim 16 (Currently Amended): The method as claimed in claim [[14]] 1, wherein the epoxidation reaction is carried out in the presence of a titanium zeolite catalyst.

Claim 17 (Currently Amended): The method as claimed in claim [[14]] 1, wherein the offgas stream comprises the olefin, methanol, water, at least one inert gas, 10 wt.-% of oxygen or less, and 100 ppm olefin oxide or less.

Claim 18 (Original): The method as claimed in claim 17, wherein, in (i), from 30 to 90 percent by weight of the olefin, from 40 to 99 percent by weight of the methanol and from 35 to 99 percent by weight of the water, comprised in the offgas stream, are condensed.

Claim 19 (Currently Amended): The method as claimed in claim [[14]] 1, wherein the olefin is propene and the olefin oxide is propene oxide.

Claim 20 (Currently Amended): The method as claimed in claim [[14]] 1, wherein the olefin obtained in (iii) is recirculated into said epoxidation reaction.

Claim 21 (Original): The method as claimed in claim 18, wherein the olefin, the methanol, and the water condensed in (i) are recirculated into said epoxidation reaction.

Claim 22 (Original): The method as claimed in claim 21, wherein the olefin is propene.

Claim 23 (Currently Amended): A method of separating propene from a gas stream, ~~comprising the propene and at least one other component,~~ wherein the gas stream is an offgas stream resulting from an epoxidation process, said process comprising reacting a propene with a hydroperoxide to give a product stream comprising propene, propene oxide, and solvent, and separating the propene oxide from said product stream by distillation, wherein at least one inert gas is introduced, to give the offgas stream comprising the propene, solvent, the at least one inert gas, and 10 wt.% of oxygen or less, said method comprising

(i) compressing and cooling the gas stream;

(ii) separating the propene from the gas stream by absorbing the propene in an absorbent~~, wherein absorption is carried out in at least an absorption column at a pressure of more than 10 to 20 bar, the absorbent being a mixture of hydrocarbons $C_nH_{2n+2}$ wherein n is from 10 to 20, the mixture comprising the hydrocarbon $C_{14}H_{30}$ in an amount of at least 10~~

~~percent by weight of the mixture~~ in an absorption unit, wherein no inert gas is additionally added to the absorption unit; and

(iii) separating the propene from the absorbent by desorption;

wherein compressing or cooling or compressing and cooling in (i) is carried out twice or three times.

Claim 24 (Original): The method as claimed in claim 23, wherein the gas stream is the offgas stream resulting from an epoxidation process, said process comprising reacting the propene with hydrogen peroxide in the presence of methanol as solvent and a titanium zeolite catalyst to give a product stream comprising propene, propene oxide, methanol, and water, and separating the propene oxide from said product stream to give the offgas stream comprising propene, methanol, and water.

Claim 25 (Original): The method as claimed in claim 24, wherein, in (i), the offgas stream is compressed to a pressure of from 13 to 18 bar and cooled to a temperature of from 30 to 45 °C and from 40 to 85 percent by weight of the propene, from 60 to 99 percent by weight of the methanol and/or from 40 to 95 percent by weight of the water, comprised in the offgas stream, are condensed.

Claim 26 (Currently Amended): The method as claimed in claim 25, wherein the ~~olefin~~ propene, the methanol, and the water condensed in (i) are recirculated into said epoxidation reaction.

Claim 27 (Currently Amended): The method as claimed in claim 23, wherein absorbing the propene in an absorbent is carried out in at least one absorption column at a

pressure of from 13 to 18 bar and a temperature of from 30 to 45 °C, said absorbent having a boiling point of from 200 to 300 °C at standard pressure, and wherein separating the ~~olefin~~ propene from the absorbent is carried in at least one separation column at a pressure of from 10 to 30 bar and a temperature of from 50 to 200 °C.

Claim 28 (Canceled).

Claim 29 (Original): The method as claimed in claim 23, wherein the propene obtained in (iii) is recirculated into said epoxidation reaction.

Claim 30 (Original): The method as claimed in claim 23, wherein, after separation of propene in (iii), the absorbent is recirculated into (ii).

Claim 31 (Original): The method as claimed in claim 23, wherein, after separation of propene in (iii), the absorbent, additionally comprising propane and methanol, is separated from propane and methanol and subsequently recirculated into (ii).

Claim 32 (Original): The method as claimed in claim 31, wherein the separation of absorbent from propene and methanol is carried out in a flash drum or in a forced circulation vaporizer.

Claim 33 (Currently Amended): A method of separating an olefin from a gas stream, ~~comprising the olefin and at least one other component,~~ wherein the gas stream is an offgas stream resulting from an epoxidation process, said process comprising reacting an olefin with a hydroperoxide to give a product stream comprising olefin, olefin oxide, and solvent, and

separating the olefin oxide from said product stream by distillation, wherein at least one inert gas is introduced, to give the offgas stream comprising the olefin, solvent, the at least one inert gas, and 10 wt.% of oxygen or less, said method comprising

(i) compressing and cooling the gas stream;

(ii) separating the olefin from the gas stream by absorbing the olefin in an absorbent in an absorption unit, said absorbent having a boiling point of from 200 to 300 °C at standard pressure and being a mixture of hydrocarbons $C_nH_{2n+2}$ wherein n is from 10 to 20, said mixture comprising the hydrocarbon $C_{14}H_{30}$ in an amount of 30 percent by weight of the mixture or more ~~and~~, wherein ~~absorption is carried out in at least one absorption column at a pressure of more than 10 to 20 bar~~ no inert gas is additionally added to the absorption unit; and

(iii) separating the olefin from the absorbent by desorption;

wherein compressing or cooling or compressing and cooling in (i) is carried out twice or three times.

Claim 34 (Original): The method as claimed in claim 33, wherein the absorbent is a mixture of hydrocarbons $C_nH_{2n+2}$ wherein n is from 13 to 15, said mixture comprising the hydrocarbon $C_{14}H_{30}$ in an amount of 50 percent by weight of the mixture or more.

Claim 35 (Currently Amended): The method as claimed in claim 33, wherein the olefin obtained in (iii) is recirculated into ~~an~~ said epoxidation reaction.

Claim 36 (Original): The method as claimed in claim 33, wherein, after separation of the olefin in (iii), the absorbent is purified in a flash drum or in a forced circulation vaporizer and, after purification, recirculated into (ii).

Claim 37 (Original): The method as claimed in claim 33, wherein the gas stream is the offgas stream resulting from an epoxidation process, said process comprising reacting the olefin with a hydroperoxide in the presence of methanol as solvent to give a product stream, and separating the olefin oxide from said product stream to give the offgas stream, said offgas stream comprising the olefin, methanol, water, at least one inert gas, 7 wt.-% of oxygen or less, and 100 ppm olefin oxide or less.

Claim 38 (Original): The method as claimed in claim 37, wherein, in (i), the offgas stream is compressed to a pressure of from more than 10 to 20 bar and cooled to a temperature of from 25 to 50 °C and from 40 to 85 percent by weight of the olefin, from 60 to 99 percent by weight of the methanol and from 40 to 95 percent by weight of the water, comprised in the offgas stream, are condensed.

Claim 39 (Original): The method as claimed in claim 38, wherein the olefin, the methanol, and the water condensed in (i) are recirculated into said epoxidation reaction.

Claim 40 (Original): The method as claimed in claim 33, wherein absorbing the olefin in the absorbent is carried out in at least one absorption column at a pressure of from more than 10 to 20 bar, and wherein separating the olefin from the absorbent is carried in at least one separation column at a pressure of from 12 to 28 bar and a temperature of from 50 to 200 °C.

Claim 41 (Original): The method as claimed in claim 35, wherein the olefin obtained in (iii) is obtained by separation from absorbent in a separation column.

Claim 42 (Original): The method as claimed in claim 33, wherein the olefin is propene and the hydroperoxide is hydrogen peroxide.

Claim 43 (Previously Presented): A method of separating propene from a gas stream, said gas stream being an offgas stream of an epoxidation process, said epoxidation process comprising reacting propene with hydrogen peroxide in the presence of a titanium zeolite catalyst and methanol as solvent to give a product stream, said epoxidation process further comprising separating propene oxide from said product stream to give said offgas stream, said offgas stream comprising propene, methanol, and water, said method comprising

(i) compressing the offgas stream at a pressure of from 13 to 18 bar and cooling the compressed offgas stream at a temperature of from 30 to 45 °C and repeating compressing and cooling once or twice, wherein from 50 to 80 percent by weight of the propene, from 60 to 99 percent by weight of the methanol and/or from 45 to 90 percent by weight of the water, comprised in the offgas stream, are condensed and recirculated into said epoxidation reaction;

(ii) separating the propene from the compressed and cooled offgas stream by absorbing the propene at a pressure of from 13 to 18 bar in an absorbent,

said absorbent having a boiling point of from 200 to 300 °C at standard pressure and being a mixture of hydrocarbons $C_nH_{2n+2}$ wherein n is from 13 to 15, said mixture comprising the hydrocarbon $C_{14}H_{30}$ in an amount of 30 percent by weight of the mixture or more;

(iii) separating the propene from the absorbent by desorption in a separation column at a pressure of from 12 to 28 bar and a temperature of from 50 to 200 °C, and recirculating the absorbent into (ii); and

(iv) recirculating the propene stream obtained in (iii) into said epoxidation reaction.

Claim 44 (Currently Amended): An integrated process for producing propene oxide, said process comprising reacting propene with hydrogen peroxide in the presence of a titanium zeolite catalyst and methanol as solvent to give a product stream, said product stream comprising propene, propene oxide, methanol, and water, said process further comprising separating propene oxide from said product stream to give the offgas stream, comprising propene, methanol, at least one inert gas, 7 wt.% oxygen or less, and water, said integrated ~~method~~ process further comprising

(i) compressing the offgas stream at a pressure of from 13 to 18 bar and cooling the compressed offgas stream at a temperature of from 30 to 45 °C and repeating compressing and cooling once or twice, wherein from 50 to 80 percent by weight of the propene, from 60 to 99 percent by weight of the methanol and/or from 45 to 90 percent by weight of the water, comprised in the offgas stream, are condensed and recirculated into an epoxidation reaction;

(ii) separating the propene from the compressed and cooled offgas stream by absorbing the propene at a pressure of from 13 to 18 bar in an absorbent, said absorbent having a boiling point of from 200 to 300 °C at standard pressure and being a mixture of hydrocarbons $C_nH_{2n+2}$ wherein n is from 13 to 15, said mixture comprising the hydrocarbon $C_{14}H_{30}$ in an amount of 30 percent by weight of the mixture or more; and

(iii) separating the propene from the absorbent in a separation column at a pressure of from 16 to 25 bar and a temperature of from 50 to 200 °C, recirculating the propene obtained in (iii) into said epoxidation reaction, purifying the absorbent obtained in a forced

circulation vaporizer at a pressure of from 0.5 to 4 bar and recirculating the purified absorbent into (ii).

Claim 45 (Currently Amended): An integrated process for producing propene oxide, said process comprising reacting propene with hydrogen peroxide in the presence of a titanium zeolite catalyst and methanol as solvent to give a product stream, said product stream comprising propene, propene oxide, methanol, and water, said process further comprising separating propene oxide from said product stream to give the offgas stream, comprising propene, methanol, at least one inert gas, 7 wt.% oxygen or less, and water, said integrated ~~method~~ process further comprising

(i) compressing the offgas stream at a pressure of from 13 to 18 bar and cooling the compressed offgas stream at a temperature of from 30 to 45 °C and repeating compressing and cooling once or twice, wherein from 50 to 80 percent by weight of the propene, from 60 to 99 percent by weight of the methanol and/or from 45 to 90 percent by weight of the water, comprised in the offgas stream, are condensed and recirculated into an epoxidation reaction;

(ii) separating the propene from the compressed and cooled offgas stream by absorbing the propene at a pressure of from 13 to 18 bar in an absorbent, said absorbent having a boiling point of from 200 to 300 °C at standard pressure and being a mixture of hydrocarbons $C_nH_{2n+2}$ wherein n is from 13 to 15, said mixture comprising the hydrocarbon $C_{14}H_{30}$ in an amount of 30 percent by weight of the mixture or more;

(iii) separating the propene from the absorbent in a separation column at a pressure of from 16 to 25 bar and a temperature of from 50 to 200 °C, recirculating the propene obtained in (iii) into said epoxidation reaction, purifying the absorbent obtained in a forced

circulation vaporizer at a pressure of from 0.5 to 4 bar and recirculating the purified absorbent into (ii);

(iv) recirculating the propene stream obtained in (iii) into said epoxidation reaction; and

(v) partially recirculating the bottoms stream obtained from an absorption column used in (ii), into said absorption column.

Claim 46 (New): The method as claimed in claim 1, wherein absorbing the olefin in an absorbent is carried out in at least one absorption column at a pressure of from more than 10 to 20 bar.

Claim 47 (New): The method as claimed in claim 1, wherein the absorbent is a mixture of hydrocarbons $C_nH_{2n+2}$ wherein n is from 10 to 20, said mixture comprising the hydrocarbon $C_{14}H_{30}$ in an amount of 10 percent by weight or more of the mixture.

Claim 48 (New): The method as claimed in claim 27, wherein the absorbent is a mixture of hydrocarbons $C_nH_{2n+2}$ wherein n is from 10 to 20, said mixture comprising the hydrocarbon $C_{14}H_{30}$ in an amount of 10 percent by weight of the mixture or more.